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| 09/651,294 | 08/30/2000 | TAKUMA KOBAYASHI | 862.C1995 | 2584 |

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| EXAMINER |
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PATEL, ASHOKKUMAR B

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| ART UNIT | PAPER NUMBER |
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2154

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 09/651,294 | Applicant(s) KOBAYASHI ET AL. | |
| | Examiner Ashok B. Patel | Art Unit 2154 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-14 are subject to examination.

Response to Arguments

2. Applicant's arguments with respect to claims 1, 7, 13 and 14 have been considered but are moot in view of the new ground(s) of rejection.

Applicant has defined the operating system as being "Moreover, those skilled in the art would understand a multitasking function of an operating system as meaning a multitasking function performed by a software operating system, such as Windows 95. (See also, page 8, lines 13 to 18 of the subject specification.)"

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshino et al. (hereinafter Yoshino) (US 6, 169, 414 B1) in view of Farrell et al. (hereinafter Farrell) (US 5, 630, 128)

Referring to claim 1,

Yoshino teaches an information processing apparatus for accumulating data of a measurement target (Fig. 1, element 104), said apparatus comprising:

an acquisition section, arranged to acquire the data of the measurement target by independently executing a computer program for data acquisition (col. 2, lines 5-11, col. 5, lines 21-27); and

a display section arranged to generate information to be displayed by independently executing a computer program for display information generation, on the basis of the acquired data (col. 10, lines 36-40),

wherein said acquisition section and said display section exchange data by interprocess communication. and the data acquisition computer program and the display information generation program are executed under a multitasking function of an operating system (col. 12, lines 29-35, "Furthermore, besides aforesaid functions according to the above embodiment are realized by executing the program codes which are read by a computer, the present invention includes a case where an OS (operating system) or the like working on the computer performs a part or entire processes in accordance with designations of the program codes and realizes functions according to the above embodiment.")

Yoshino fails to teach specifically teach wherein execution of the data acquisition program and the display information generation program is controlled based on a priority of the programs.

Farrell teaches in Abstract "A multitasking operating system permits application programs (and their developers) to influence a schedule of execution of program threads derived from the application programs. Each of the program threads is assigned a priority level and a dispatch class in which the thread resides. Based on

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these parameters, the operating system schedules the threads for execution in the following manner. The queues the highest priority thread which is available for execution from each dispatch class onto a run list for execution by a processor. The highest priority thread on the run list is executed first. An application program thread can change the dispatch class in which another program thread resides. An executing program thread can also voluntarily yield to a specified program thread in the same dispatch class or permit the highest priority available thread in the same dispatch class to be queued on the run list with itself being available and in contention for the run list.”(wherein execution of the programs is controlled based on a priority of the programs.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to incorporate Farrell’s feature of multitasking operating system permitting application programs to influence a schedule of execution of program threads derived from the application programs wherein each of the program threads is assigned a priority level and a dispatch class in which the thread resides with that the operating system scheduling the threads for execution into the operating system of Yoshino such that it will provide a multitasking operating system which optimizes the execution of threads, while permitting application programs to substantially influence the execution schedule and provide a multitasking operating system which can operate in either a single processor or multiprocessor computer system as taught by Farrell.

Referring to claim 2,

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The reference teaches the apparatus according to claim 1, further comprising a recording section arranged to record data obtained by the interprocess communication on a recording medium, by independently executing a computer program for data recording executed under the multitasking function. (col. 2, lines 5-11, col. 5, lines 21-27, col. 12, lines 13-35).

Referring to claim 3,

The reference teaches the apparatus according to claim 1, further comprising a communication section arranged to transfer data obtained by the interprocess communication to another information processing apparatus connected to a network, by independently executing a computer program for data transfer executed under the multitasking function. (col. 10, lines 36-40)

Referring to claim 4,

The reference teaches the apparatus according to Claim 1, further comprising a management section arranged to control operations of said acquisition and display sections in accordance with priorities of said acquisition and display sections by independently executing a computer program for operation control executed under the multitasking function. (col. 5, lines 21-27, col. 2, lines 5-11, col. 12, lines 13-35).

Referring to claim 5,

The reference teaches the apparatus according to Claim 1, wherein the computer programs of said acquisition and display sections are provided as an integrated computer program which integrates the computer programs. (col. 12, lines 13-35, col. 10, lines 36-40)

Referring to claim 6,

The reference teaches the apparatus according to Claim 1, wherein the measurement target is a solar battery. (Fig. 1, element 104).

Referring to claim 7,

Claim 7 is a claim to an information processing method carried out by the apparatus of claim 1. Therefor claim 7 is rejected for the reasons set forth for claim 1.

Referring to claim 8,

Claim 8 is a claim to an information processing method carried out by the apparatus of claim 2. Therefor claim 8 is rejected for the reasons set forth for claim 2.

Referring to claim 9,

Claim 9 is a claim to an information processing method carried out by the apparatus of claim 3. Therefor claim 9 is rejected for the reasons set forth for claim 3.

Referring to claim 10,

Claim 10 is a claim to an information processing method carried out by the apparatus of claim 4. Therefor claim 10 is rejected for the reasons set forth for claim 4.

Referring to claim 11,

Claim 11 is a claim to an information processing method carried out by the apparatus of claim 5. Therefor claim 11 is rejected for the reasons set forth for claim 5.

Referring to claim 12,

Claim 12 is a claim to an information processing method carried out by the apparatus of claim 6. Therefor claim 12 is rejected for the reasons set forth for claim 6.

Referring to claim 13,

Claim 13 is a claim to a computer program product stored on a computer readable medium comprising a computer program, for an information processing method carried out by the apparatus of claim 1. Therefore claim 13 is rejected for the reasons set forth for claim 1.

Referring to claim 14,

The reference teaches an information processing apparatus for accumulating data of a measurement target (Fig. 1, element 104), said apparatus comprising:

an acquisition section, arranged to acquire the data of the measurement target by independently executing a computer program for data acquisition (col. 2, lines 5-11, col. 5, lines 21-27);

a display section, arranged to generate information to be displayed by independently executing a computer program for display information generation on the basis of the acquired data supplied to the display section by the acquiring section by interprocess communication (col. 10, lines 36-40, col. 12, lines 29-35, "Furthermore, besides aforesaid functions according to the above embodiment are realized by executing the program codes which are read by a computer, the present invention includes a case where an OS (operating system) or the like working on the computer performs a part or entire processes in accordance with designations of the program codes and realizes functions according to the above embodiment.");

a recording section, arranged to record the data obtained by the interprocess communication on a recording medium, by independently executing a computer program for data recording (col. 2, lines 5-11, col. 5, lines 21-27, col. 12, lines 13-35)

a communication section, arranged to transfer data obtained by the interprocess communication to another information processing apparatus connected to a network by independently executing a computer program for data transfer (col. 10, lines 36-40); and

a management section, arranged to control operations of said acquisition and display sections in accordance with priorities of said acquisition and display sections, by independently executing a computer program for operation control, wherein all of the computer programs of said acquisition, display, communication, and management sections are provided as an integrated computer program which integrates the independent computer programs, and the computer programs are executed under a multitasking function of an operating system. (col. 2, lines 5-11, col. 5, lines 21-27, col. 12, lines 13-35)

Yoshino fails to teach specifically teach wherein execution of the data acquisition program, the recording program, and the display information generation program is controlled by the operation control program based on a priority of the programs.

Farrell teaches in Abstract "A multitasking operating system permits application programs (and their developers) to influence a schedule of execution of program threads derived from the application programs. Each of the program threads is assigned a priority level and a dispatch class in which the thread resides. Based on these parameters, the operating system schedules the threads for execution in the following manner. The queues the highest priority thread which is available for execution from each dispatch class onto a run list for execution by a processor. The highest priority thread on the run list is executed first. An application program thread

can change the dispatch class in which another program thread resides. An executing program thread can also voluntarily yield to a specified program thread in the same dispatch class or permit the highest priority available thread in the same dispatch class to be queued on the run list with itself being available and in contention for the run list.”(wherein execution of the programs is controlled based on a priority of the programs.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to incorporate Farrell's feature of multitasking operating system permitting application programs to influence a schedule of execution of program threads derived from the application programs wherein each of the program threads is assigned a priority level and a dispatch class in which the thread resides with that the operating system scheduling the threads for execution into the operating system of Yoshino such that it will provide a multitasking operating system which optimizes the execution of threads, while permitting application programs to substantially influence the execution schedule and provide a multitasking operating system which can operate in either a single processor or multiprocessor computer system as taught by Farrell.

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses,

to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (703) 305-2655. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (703) 305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Abp

 JOHN FOLLANSBEE
SUPERVISORY PATENT EXAMINER
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